

CLAIMS

1. An image forming apparatus comprising:
a conveyance belt that conveys a recording
5 medium by attracting the recording medium by an
electrostatic force; and
a recording head that discharges liquid
droplets toward the recording medium being conveyed by
the conveyance belt at a predetermined conveyance speed,
10 wherein the image forming apparatus further
comprises:
charging means for applying alternating
positive and negative electric charges onto said
conveyance belt; and
15 means for controlling a conveyance speed in
accordance with a charge period length of the
alternating positive and negative electric charges
applied onto said conveyance belt.
- 20 2. The image forming apparatus as claimed in
claim 1, wherein when the predetermined conveyance speed
is higher than a conveyance speed corresponding to a
predetermined value of the charge period length, said
charging means applies the positive and negative
25 electric charges during a period from a state where said

conveyance belt is stopped until the predetermined conveyance speed is reached.

3. The image forming apparatus as claimed in
5 claim 2, wherein said charging means applies at least one or more pairs of the positive and negative electric charges.

4. The image forming apparatus as claimed in
10 claim 1, wherein when the predetermined conveyance speed for conveying the recording medium is higher than a conveyance speed corresponding to the predetermined period length, said charging means applies the positive and negative electric charges during a period from a
15 state where said conveyance belt is at the predetermined conveyance speed until said conveyance belt is stopped.

5. The image forming apparatus as claimed in
claim 4, wherein said charging means applies at least
20 one or more pairs of the positive and negative electric charges.

6. The image forming apparatus as claimed in
claim 1, wherein when the predetermined conveyance speed
25 for conveying the recording medium is higher than a

conveyance speed corresponding to the predetermined period length, said charging means applies the positive and negative electric charges during a period from a state where said conveyance belt is stopped until the predetermined conveyance speed is reached and a period from a state where said conveyance belt is at the predetermined conveyance speed until said conveyance belt is stopped.

10 7. The image forming apparatus as claimed in claim 6, wherein said charging means applies at least one or more pairs of the positive and negative electric charges.

15 8. An image forming apparatus comprising:
a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force; and
a recording head that discharges liquid droplets toward the recording medium being conveyed by the conveyance belt,
20 wherein the image forming apparatus further comprises:
charging means for applying alternating
25 positive and negative electric charges onto said

conveyance belt; and

means for controlling a conveyance speed in accordance with an existence of the charges on said conveyance belt.

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9. An image forming apparatus comprising:

a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force; and

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a recording head that discharges liquid droplets toward the recording medium being conveyed by the conveyance belt at a predetermined conveyance speed,

wherein the image forming apparatus further comprises:

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charging means for applying alternating positive and negative electric charges onto said conveyance belt;

means for controlling a charge period of the positive and negative electric charges applied onto said

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conveyance belt; and

means for controlling a conveyance speed in accordance with a charge period length of the positive and negative electric charges applied onto said conveyance belt,

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wherein the charge period length is adjusted

by said means for controlling a charge period when the charge period length is equal to or longer than a predetermined length, and the conveyance speed is adjusted by said means for controlling a conveyance
5 speed when the charge period length is shorter than a predetermined length.

10. The image forming apparatus as claimed in claim 9, wherein when the conveyance speed is higher
10 than a speed corresponding to a predetermined value of the charge period length, said charging means applies the positive and negative electric charges during a period from a state where said conveyance belt is stopped until a predetermined conveyance speed is
15 reached.

11. The image forming apparatus as claimed in claim 10, wherein said charging means applies at least one or more pairs of the positive and negative electric
20 charges.

12. The image forming apparatus as claimed in claim 9, wherein when the predetermined conveyance speed for conveying the recording medium is higher than a
25 conveyance speed corresponding to the predetermined

period length, said charging means applies the positive and negative electric charges during a period from a state where said conveyance belt is at the predetermined conveyance speed until said conveyance belt is stopped.

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13. The image forming apparatus as claimed in claim 12, wherein said charging means applies at least one or more pairs of the positive and negative electric charges.

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14. The image forming apparatus as claimed in claim 9, wherein when the predetermined conveyance speed for conveying the recording medium is higher than a conveyance speed corresponding to the predetermined period length, said charging means applies the positive and negative electric charges during a period from a state where said conveyance belt is stopped until the predetermined conveyance speed is reached and a period from a state where said conveyance belt is at the predetermined conveyance speed until said conveyance belt is stopped.

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15. The image forming apparatus as claimed in claim 14, wherein said charging means applies at least one or more pairs of the positive and negative electric

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charges.